

In the Claims:

Please amend the claims as follows:

1. (Original) A system comprising:
a hardware subsystem that includes at least one component adapted to carry an electrical signal associated with one from the group of a sensing operation and a control operation;
an application database storing application service configuration information that corresponds to a manner of processing information associated with the electrical signal; and
a self-configuring application services system comprising a configuration module coupled to the hardware subsystem and coupled to retrieve application service configuration information from the application database.

2. (Original) The system of claim 1, wherein:
the application service configuration information references a software object for processing information associated with the electrical signal, and
the application services system further comprises the software object.

3. (Original) The system of claim 2, further comprising an object database storing a version of the software object.

4. (Original) The system of claim 3, wherein the object database forms a portion of an Object Database Management System.

5. (Original) The system of claim 1, further comprising:
a signal database storing interface configuration information corresponding to a manner of managing communication between the hardware subsystem and the application services system; and
a self-configuring interface system coupled to the hardware subsystem and the application services system and comprising a configuration module coupled to retrieve interface configuration information from the signal database.
6. (Original) The system of claim 5, wherein said interface configuration information further references a software object that corresponds to a manner of processing information associated with the electrical signal.
7. (Original) The system of claim 6, wherein the interface system further comprises the software object.
8. (Original) The system of claim 7, further comprising an object database storing a version of the software object.
9. (Original) The system of claim 8, wherein the object database forms a portion of an Object Database Management System.
10. (Original) The system of claim 5, wherein the interface system communicates with the hardware subsystem in accordance with the electrical signal, and communicates with the application services system in accordance with an event code that corresponds to the electrical signal.

11. (Original) The system of claim 7, wherein the interface system communicates with the hardware subsystem in accordance with the electrical signal, and communicates with the software object and the application services system in accordance with an event code that corresponds to the electrical signal.

12. (Original) A system comprising:

a hardware subsystem that includes a set of components adapted to carry electrical signals, each electrical signal associated with one from the group of a sensing operation and a control operation;

an application database referencing a first software object that corresponds to a manner of processing information associated with an electrical signal;

a self-configuring application services system comprising:

 a configuration module coupled to the hardware subsystem and coupled to retrieve application service configuration information from the application database; and

 the first software object;

a signal database storing interface configuration information corresponding to a manner of managing communication between the hardware subsystem and the application services system and referencing a second software object that corresponds to a manner of processing information associated with an electrical signal; and

a self-configuring interface system coupled to the hardware subsystem and the application services system and comprising:

 a configuration module coupled to retrieve interface configuration information from the signal database; and

 the second software object.

13. (Original) The system of claim 12, further comprising an object database storing one from the group of the first software object and the second software object.

14. (Original) The system of claim 13, wherein the object database forms a portion of an Object Database Management System.

15. (Original) The system of claim 12, further comprising a network coupled to the application services system and the interface system.

16. (Original) The system of claim 15, wherein the network comprises one from the group of a Local Area Network, a Wide Area Network, and the Internet.

17. (Original) The system of claim 12, wherein the interface system communicates with the hardware subsystem in accordance with the electrical signal, and communicates with the application services system in accordance with an event code that corresponds to the electrical signal.

18. (Original) The system of claim 12, wherein the interface system communicates with the hardware subsystem in accordance with the electrical signal, and communicates with the second software object and the application services system in accordance with an event code that corresponds to the electrical signal.

19. (Original) The system of claim 12, wherein the interface system further comprises a signal exchange module coupled to the hardware subsystem, the

signal exchange module comprising a storage element for storing a hardware signal corresponding to an electrical signal.

20. (Original) The system of claim 12, wherein the interface system further comprises:

a signal exchange module coupled to the hardware subsystem, the signal exchange module comprising a storage element for storing a hardware signal corresponding to an electrical signal; and

an event coding-decoding module coupled to map between an electrical signal and an event code.

21. (Original) The system of claim 12, wherein the interface system further comprises:

a signal exchange module coupled to the hardware subsystem, the signal exchange module comprising a storage element for storing a hardware signal corresponding to an electrical signal;

an event coding-decoding module coupled to map between an electrical signal and an event code; and

an interprocess communication module coupled to manage event-based communication with the application services system.

22. (Original) The system of claim 12, wherein the interface system further comprises:

a signal exchange module coupled to the hardware subsystem, the signal exchange module comprising a storage element for storing a hardware signal corresponding to an electrical signal;

an event coding-decoding module coupled to map between an electrical signal and an event code; and

an interprocess communication module coupled to manage event-based communication with the application services system and the second software object.

23. (Original) In a system comprising a hardware subsystem that includes a set of components adapted to carry electrical signals, each electrical signal associated with one from the group of a sensing operation and a control operation, a method for processing an electrical signal comprising the steps of:

retrieving application service configuration information that references a software object that includes program instructions directed toward processing the electrical signal;

retrieving a software object in accordance with the application service configuration information;

retrieving interface configuration information corresponding to the hardware subsystem; and

automatically generating a hardware interface for managing communication between the software object and the hardware subsystem in accordance with the interface configuration information.

24. (Original) The method of claim 23, wherein the software object is retrieved from an object database.

25. (Original) The method of claim 23, wherein the software object is retrieved from an Object Database Management System.

26. (Original) The method of claim 23, further comprising the step of establishing a mapping between the electrical signal and an event code.
27. (Original) The method of claim 26, further comprising the steps of: managing communication between the hardware subsystem and the interface system in accordance with the electrical signal; and managing communication between the interface system and the software object in accordance with the event code.
28. (Original) The method of claim 23, wherein the hardware interface is associated with a first computer system, and the software object is associated with a second computer system.
29. (Original) In a system comprising a hardware subsystem that includes a set of components adapted to carry electrical signals, each electrical signal associated with one from the group of a sensing operation and a control operation, a method for processing electrical signals comprising the steps of:
- retrieving application service configuration information that associates a first set of software objects with at least one electrical signal;
 - retrieving the first set of software objects in accordance with the application service configuration information;
 - retrieving interface configuration information that corresponds to the hardware subsystem and which associates a second set of software objects with at least one electrical signal; and
 - automatically generating a hardware interface for managing communication between the software object and the hardware subsystem in accordance with the interface configuration information.

30. (Original) The method of claim 29, wherein the first and second sets of software objects are retrieved from an object database.

31. (Original) The method of claim 29, wherein the first and second sets of software objects are retrieved from an Object Database Management System.

32. (Original) The method of claim 29, further comprising the step of establishing mappings between a set of electrical signals and a set of event codes for those electrical signals associated with software objects within the first set of software objects.

33. (Original) The method of claim 32, further comprising the steps of:
managing communication between the hardware subsystem and the interface system in accordance with the set of electrical signals; and
managing communication between the interface system and the first set of software objects in accordance with the set of event codes.

34. (Original) The method of claim 29, further comprising the step of establishing mappings between a set of electrical signals and a set of event codes for those electrical signals associated with software objects within the first and second sets of software objects.

35. (Original) The method of claim 34, further comprising the steps of:
managing communication between the hardware subsystem and the interface system in accordance with the set of electrical signals; and
managing communication between the interface system, the first set of software objects, and the second set of software objects in accordance with the set of event codes.

36. (Original) The method of claim 29, further comprising the steps of:
executing program instructions associated with the first set of software objects within a first computer system; and

executing program instructions associated with the second set of software objects within a second computer system.

37. (Original) The method of claim 36, wherein the second computer system includes the hardware interface.